

What is claimed is:

1. A voltage conversion circuit comprising:
a pulse generator for generating a pulse signal having a fixed pulse width at variable pulse periods,
wherein an output voltage from the voltage conversion circuit is determined according to a ratio of the pulse width to the pulse period of the pulse signal generated by the pulse generator.
2. The voltage conversion circuit as claimed in claim 1,
wherein variation of the pulse period of the pulse signal is reduced by restricting a range within which the output voltage from the voltage conversion circuit is variable.
3. The voltage conversion circuit as claimed in claim 2,
wherein an upper limit of the range within which the output voltage from the voltage conversion circuit is variable is equal to or lower than half a voltage amplitude of the pulse signal.
4. The voltage conversion circuit as claimed in claim 2,
wherein the range within which the output voltage from the voltage conversion circuit is variable is within $\pm 20\%$ of an optimum operating voltage of the output voltage.
5. The voltage conversion circuit as claimed in claim 1,
wherein the output voltage is selected from among discrete values within the range within which the output voltage is variable.

6. The voltage conversion circuit as claimed in claim 1,
wherein the pulse generator varies the pulse period of the pulse signal by giving a predetermined delay to a reference pulse signal generated within the pulse generator, the reference pulse signal having a fixed pulse width.

7. A semiconductor integrated circuit device comprising a voltage conversion circuit as claimed in claim 1.